

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A display control device for outputting an output image signal, ~~the said~~ display control device comprising:

a characteristic value-calculating unit operable to calculate a characteristic value based on an input image signal; and

a conversion characteristic-calculating unit operable to determine at least one conversion characteristic adaptively with respect to the input image signal based on the characteristic value,

wherein said conversion characteristic-calculating unit is operable to determine the at least one conversion characteristic such that, when an abscissa axis represents the input image signal and an ordinate axis represents the output image signal, and a range from an origin of the axes to a full scale point along the abscissa axis is divided into a low level region, which is close to the origin, a high level region, which is close to the full scale point, and a middle level region, which is positioned between the low level region and the high level region, an average slope of the output image signal in the middle level region is greater than any one of average slopes of the output image signal in the low and high level regions.

2. (Currently amended) The display control device as defined in claim 1, wherein said characteristic value-calculating unit ~~calculates~~ is operable to calculate a plurality of characteristic values based on the input image signal.

3. (Currently amended) The display control device as defined in claim 1, ~~the display control device~~ further comprising a signal-converting unit operable to convert the input image signal in accordance with the at least one conversion characteristic determined by said conversion characteristic-calculating unit.

4. (Currently amended) ~~A~~ The display control device as defined in claim 1, for outputting an output image signal, the display control device further comprising:
~~a conversion characteristic-calculating unit operable to determine a conversion characteristic adaptively with respect to an input image signal;~~
a signal-converting unit operable to convert the input image signal in accordance with the at least one conversion characteristic determined by said conversion characteristic-calculating unit; and
a weight-calculating unit operable to apply a mask to the input image signal in accordance with a weighting characteristic to generate a masked image signal; and,
wherein:
~~a~~ said characteristic value-calculating unit is operable to calculate ~~a~~ the characteristic value based on the masked image signal generated by said weight-calculating unit; and,
~~wherein~~ said conversion characteristic-calculating unit ~~determines~~ is operable to determine the at least one conversion characteristic based on the characteristic value.

5-7. (Cancelled)

8. (Currently amended) The display control device as defined in claim 4, wherein the weighting characteristic suppresses a low level region in the input image signal and a high level region in the input image signal.

9. (Currently amended) The display control device as defined in claim 4, wherein the weighting characteristic suppresses a middle level region in the input image signal and a high level region in the input image signal.

10. (Original) The display control device as defined in claim 4, wherein the weighting characteristic is determined adaptively with respect to the input image signal.

11-15. (Cancelled)

16. (Currently amended) The display control device as defined in ~~claim 15~~ claim 1, wherein the characteristic value determines a size and location of the middle level region.

17. (Currently amended) The display control device as defined in ~~claim 15~~ claim 1, wherein the characteristic value is an average brightness of an image being expressed by the input image signal.

18. (Currently amended) The display control device as defined in ~~claim 15~~, claim 1, further comprising a signal-converting unit operable to convert the input image signal in accordance with the at least one conversion characteristic determined by said conversion characteristic-calculating unit,

wherein said characteristic value-calculating unit ~~outputs~~ is operable to output a signal that adjusts an output level of said signal-converting unit and a light emission level of an external light source in a correlated manner.

19. (Currently amended) The display control device as defined in ~~claim 15~~ claim 1, further comprising

a signal-converting unit operable to convert the input image signal in accordance with the at least one conversion characteristic determined by said conversion characteristic-calculating unit; and

a light source-adjusting unit operable to adjust an output image signal to be fed to a display panel and a light emission control signal to be fed to an external light source in a correlated manner based on ~~the~~ an output image signal of said signal-converting unit.

20. (Currently amended) The display control device as defined in claim 18, wherein; when a maximum ordinate value of the at least one conversion characteristic falls below a threshold value, said characteristic value-calculating unit ~~performs~~ is operable to perform an adjustment so as to raise the output level of said signal-converting unit and to lower the light emission level of the external light source.

21. (Currently amended) The display control device as defined in claim 18, wherein; when a maximum ordinate value of ~~said~~ the at least one conversion characteristic exceeds a threshold value, said characteristic value-calculating unit ~~performs~~ is operable to perform an adjustment so as to raise the light emission level of the external light source.

22-23. (Cancelled)

24. (Currently amended) A display device comprising:
a display unit; and
a display control device operable to output an output image signal, and ~~further operable to control said display unit by~~ using the output image signal, said display control device comprising:

a characteristic value-calculating unit operable to calculate a characteristic value based on an input image signal; and

a conversion characteristic-calculating unit operable to determine at least one conversion characteristic adaptively with respect to the input image signal based on the characteristic value,

wherein said conversion characteristic-calculating unit is operable to determine the at least one conversion characteristic such that, when an abscissa axis represents the input image signal and an ordinate axis represents the output image signal, and a range from an origin of the axes to a full scale point along the abscissa axis is divided into a low level region, which is close to the origin, a high level region, which is close to the full scale point, and a middle level region, which is positioned between the low level region and the high level region, an average slope of the output image signal in the middle level region is greater than any one of average slopes of the output image signal in the low and high level regions; and

wherein said characteristic value-calculating unit ~~calculates~~ is operable to calculate a plurality of characteristic values based on the input image signal.

25. (Currently amended) A display device as defined in claim 24,

wherein said display control device further comprises a signal-converting unit operable to convert the input image signal in accordance with the at least one conversion characteristic determined by said conversion characteristic-calculating unit; and

wherein said display unit further comprises:

a display panel operable to display an image, by inputting ~~the~~ an output image signal from said signal-converting unit, the output image signal having been adjusted in output levels in accordance with the at least one conversion characteristic determined by said conversion characteristic-calculating unit of said display control device; and

a light source operable to illuminate said display panel with an emission level controlled in accordance with the at least one conversion characteristic determined by said conversion characteristic-calculating unit of said display control device.

26-30. (Cancelled)